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Education May Lift USSR's Bonds

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The following is condensed from a talk by Dulles, director of the Central Intelligence Agency, at Columbia University.

MUCH OF THE WORK of the Central Intelligence Agency is focused on developments in the Soviet Union and its European and Far Eastern satellites and allies.

Naturally, we are particularly concerned with information on the military and industrial strength of the Communist world. However, we also follow the cultural development behind the Iron Curtain, and recently we have been giving close study to the Soviet educational system.

The Soviets have two educational goals. First, to condition the Soviet people to be proper believers in Marxist Leninism and to do the bidding of their rulers. Second to turn out the necessary trained technicians to build the military and industrial might of the USSR.

In the field of science, the Soviets have made rapid progress and their accomplishments here should not be minimized, least of all by those of us who are directly concerned with our national security.

Twenty-five years ago, Soviet scientific education was riddled with naive experiments, persecution of scholars and unrealistic programs.

Today, that is no longer so. The Soviet education system—in the sciences and engineering—now bears close comparison with ours, both in quality of training and in numbers of persons trained to a high level. At the university graduate level, we find that the entrance examinations for scientific work at the top institutions are about as tough as those required by our own institutions.

True, their biology has been warped by Soviet ideology, most conspicuously by heresies in the field of genetics, such as the doctrine that acquired characteristics are inherited. Also, their agricultural sciences have been backward, plagued like all of Soviet agriculture by the follies of the collective system. What farmer will go out into the middle of a cold Russian night to see what ails a state-owned cow?

In the physical sciences there is little evidence of such political interference. Soviet mathematics and meteorology, for example, appear to be clearly on a par with those of the West, and even ahead in some respects.

Military needs dominate their research program. We who are in intelligence work have learned by now that it is rarely safe to assume that the Soviets do not have the basic skill, both theoretical and technical, to do in these fields what we can do.

While total Soviet scientific manpower at the university graduate level is about the same as ours—somewhere over a million each—about half of the Soviet total were trained by the inferior prewar standards. In number of research workers—a good index of average quality—we estimate that the United States has a 2-1 margin over the U.S.S.R. in the physical sciences.

WE MUST remember, too, that the United States has a substantial number of competent engineers who have not taken university degrees but have learned their trade through experience. The U.S.S.R. has no real counterpart for this group, just as it has no substantial counterpart for the vast American reservoir of persons with high-grade mechanical skills.

But lest we become complacent, it is well to note that the Soviets are now turning out more university graduates in the sciences and engineering than we are—about 120,000 to 70,000 in 1955. In round numbers, the Soviets will graduate about 1,200,000 in the sciences in the 10 years from 1950 to 1960, while the comparable United States figure will be about 900,000.

These comparisons in the scientific field most emphatically do not mean that Soviet higher education as a whole is as yet comparable to that of the United States. More than 50 per cent of Soviet graduates are in the sciences, against less than 20 per cent in the United States. Science in the U.S.S.R. has had an overriding priority.

Another important feature of Soviet education is the growth of secondary education at the senior high school level. By 1960, the Soviets will have 4 to 5 times as many secondary graduates per year as they had in 1950. These will be divided fairly evenly between men and women. Whereas, a decade ago, only about 20 per cent of Soviet seventh grade students went any farther, by 1960 probably more than 70 per cent will do so.

Their secondary school standards are high and largely explain their ability to train competent scientists and engineers. Whether they can maintain these standards in the face of a very rapid expansion is a question.

SO MUCH for the advance in material terms. Let us turn now to the "thought control" aspect.

The Soviets give top priority to preserving the Marxist-Leninist purity of their students. Beginning with kindergarten rhymes on the glories of Lenin, they pass to the history of the Communist Party and comparison of the "benevolent" Soviet constitution with the "corrupt" constitutions of the West that do not confer liberty.

Soviet economics teaches why the workers in capitalist countries can never own cars but must always live in poverty. In the lower grades, civic virtue is taught by citing the example of a Soviet boy, Pavlik Morozov, who betrayed his family to the secret police and now has statues raised in his honor.

Even though it is hard to distort the physical sciences, they are used to prove the virtues of atheism. In ancient history, it is the Athenians who are corrupt and the Spartans virtuous. In literature courses, selected works of Dickens are read as presenting an authentic picture of the present-day life of the British workingman, while Howard Fast, "Uncle Tom's Cabin" and "The Grapes of Wrath" portray the contemporary United States.

To repay the government for his or her so-called "free" education, Soviet law requires that each student upon graduation must work for three consecutive years as the state directs.

Even at the end of the 3-year compulsory assignment, the individual still is under the control of the Communist Party, the Young Communist League, the local union or the factory directors. To object to further assignments is to court an efficiency report so bad that a job will be hard to find. And if a man were to refuse an assignment, he would lose his occupation and be forced to work at unskilled and menial tasks wherever he could find them.

Such, then, is the system—stressing high technical educational standards on the one hand while insisting on Communist philosophy and discipline on the other. Its ultimate human result, the Soviet graduate, must be—in the phrase given me by one of the best educated of our recent defectors—"a man divided."

In time, with the growth of education—with more knowledge, more training of the mind, given to more people—this Soviet "man divided" must inevitably come to have more and more doubt about the Communist system as a whole. If we take a longer look we can foresee the possibility of great changes in the Soviet system. Here the educational advances will play a major part.

There is already evidence of this. As I have said, the physical sciences are being freed of party-line restraints. Within the educational structure itself, the pressure to turn out good scientists and good engineers has caused a de-emphasis of the time spent on ideological subjects.

The student engineer, while he still has to pass his courses in Marxist-Leninism, can increasingly afford to do a purely formal job on the ideological front if he is a good engineer.

In the last year there have been interesting signs of this freedom spreading to other areas, notably to the biological and agricultural sciences. Lysenko is no longer gospel—I suspect for the very simple reason that his theories proved fallacious when used as the basis for new agricultural programs.

The development of corn and of better wheat strains proved remarkably resistant to the teachings of Marx and Lenin—and in the end, nature won the day. After all, Karl Marx was not much of a farmer. Now Moscow is looking toward Iowa.

SO FAR, this is only a small straw in the wind. But it is a significant one. If freedom to seek truth can spread from the physical to the biological sciences, we can begin to look for signs of independence even in the hallowed sanctum of economics.

Certainly, every year that the "decadent" capitalist system continues to avoid depression and to turn out more and more goods, even the most hardened Soviet economist must wonder about the accuracy of the Communist version of truth in this field.

In cultural pursuits, the evidence is not all one-sided. Literature and even music are still subject to denunciation and criticism for not expressing the proper ideals. But clearly, here too there has been some relaxation in the past two years. Recently, writers once denounced as bourgeois and cosmopolitan are being permitted to work again.

Ultimately, however much the Soviets condition a man's mind, however narrowly they permit it to develop and however much they seek to direct him after he is trained, they cannot in the end prevent him from exercising that critical power that they themselves have caused to be created in him when they gave him an education.